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JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

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(71) Applicant: OKAMOTO TOSHIHIKO SHIYUDO KOICHI

(72) Inventor:

OKAMOTO TOSHIHIKO  
SUGIMURA TAKASHI  
KOSUGE TAKUO  
SHIYUDO KOICHI  
TSUJI KUNIO  
TAKEDA TAKASHI  
NAGAO MINAKO  
YAHAGI TAKIE  
YAMAMOTO TAKESHI  
YAMAGUCHI KENTARO  
KIYONO YUKO  
IITAKA YOICHI

(54) 2-AMINO-DIPYRIDO (1,2-A; 3',2'-D) IMIDAZOLE  
DERIVATIVE, ITS PREPARATION AND  
MUTAGENIC AGENT THEREFROM

## (57) Abstract:

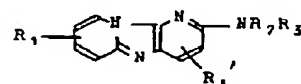
NEW MATERIAL: 2-Amino-dipyrido [1,2-a; 3',2'-d] imidazole derivatives of formula I ( $R_1$  is H, hydroxyl, halogen, lower alkyl, lower alkoxy;  $R'$  is H, lower alkyl;  $R_2$  and  $R_3$  are H, lower alkyl, acyl).

EXAMPLE: 2-Amino-6-methyldipyrido [1,2-a; 3',2'-d] imidazole.

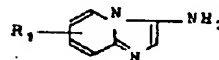
USE: Mutagenic agent; they are used to induce the mutation in microorganisms and improvement of plants, having stronger activity than known mutagens.

PREPARATION: Some compounds of formula I can be obtained by pyrolysis of glutamic acid. Industrially, the compound of formula V prepared from a compound of formula II and a compound of formula III or IV is, when desired, alkylated or acylated to give the compound of formula I.

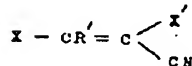
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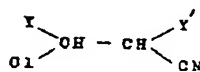
I



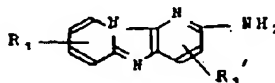
II



III



IV



V